

A REVISION OF THE FUR MITES MYOBIIDAE (ACARINA)
(suite et fin).

By Charles D. RADFORD, Hon. D. Sc. F. Z. S.
(MEMBRE CORRESPONDANT DU MUSÉUM D'HISTOIRE NATURELLE, PARIS).

Genus **FOLIOMYOBIA** gen. nov.

Differing from the genus *Radfordia* in possessing broadly foliate dorsal spines. Differing from the genus *Ewingana* gen. nov. in having but a single lateral spine I on each side of capitulum. Capitulum symmetrical ; legs I equal, without terminal claw. Tarsus II, III and IV each having two claws.

Type species : *Myobia chiropteralis* Michael, 1884.

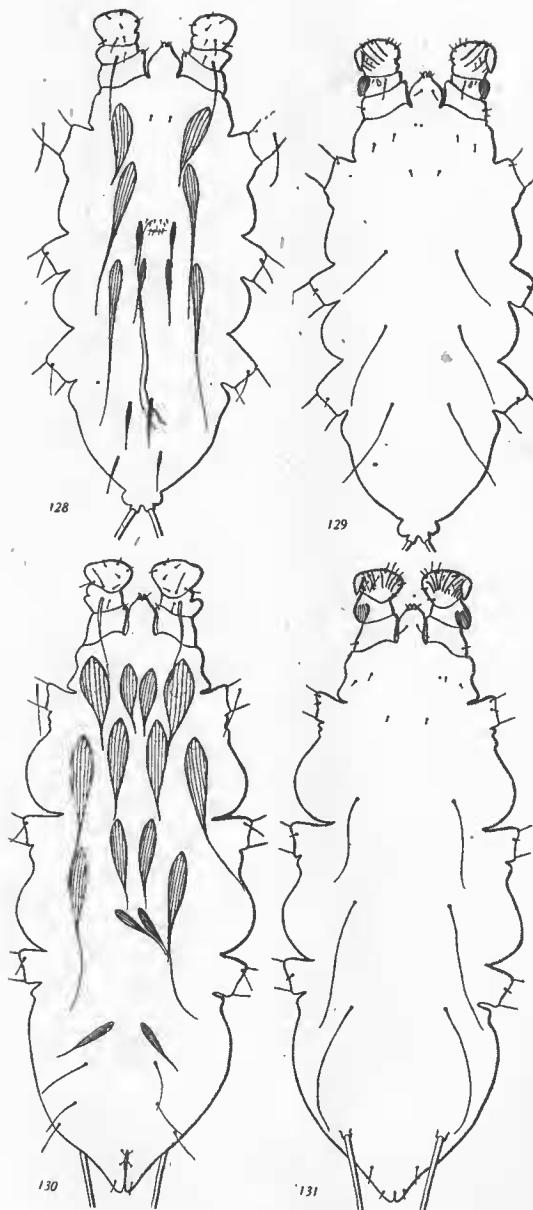
FOLIOMYOBIA CHIROPTERALIS (Michael, 1884).

Myobia chiropteralis Michael, 1884 *J. Quekett Micro. Club*, 2 : (2), I.

The male dorsum (fig. 128) has lateral spines I broadly foliate striated ; lateral spines II broad at base, tapering, posterior to coxae II, extending almost to coxae IV ; lateral spines III longer than preceding spines, narrower, level with coxae III, reaching beyond coxae IV. Sub-median spines I minute, level with lateral spines I ; sub-median spines II broad, striated, anterior to coxae III ; sub-median spines III striated, level with coxae III ; sub-median spines IV long, slender, posterior to coxae IV ; sub-median spines V similar to preceding spines, closer to posterior edge of body. Genital pore anterior to coxae III, with five pairs of small spines. Penis long, tapering, extending from behind sub-median spines IV to genital pore.

The male venter (fig. 129) has two pairs of small spines anterior to coxae II ; a pair of spines level with coxae II ; anterior to coxae III is a pair of long spines ; between coxae III and IV is a pair of long spines ; level with posterior edge of coxae III is a pair of long spines. Tarsus II with two short, stout claws ; tarsus III and IV each with two long claws.

The female dorsum (fig. 130) has lateral spines I broadly foliate, anterior to coxae II, striated ; lateral spines II broad at base, tapering, posterior to coxae II, reaching midway between coxae III and IV ; lateral spines III posterior to coxae II, extending to pos-



Foliomyobia chiropteralis (Michael, 1884).

FIG. 128, ♂ dorsum. — FIG. 129, ♂ venter. — FIG. 130, ♀ dorsum. — FIG. 131, ♀ venter.

Bulletin du Muséum, 2^e série, t. XXV, n° 1, 1953.

terior edge of coxae IV. Sub-median spines I level with lateral spines I, foliate, striated ; sub-median spines II posterior to coxae II, broader, striated ; sub-median spines III level with coxae III, narrower ; sub-median spines IV midway between coxae III and IV, narrow, striated ; sub-median spines V posterior to coxae IV, narrow, striated ; sub-median spines VI, VII and VIII long, slender, posterior to sub-median spines V. Three pairs of small spines flank the anus.

The female venter (fig. 131) has two pairs of small spines anterior to coxae II ; third pair of spines level with coxae II ; anterior to coxae III is a pair of long spines ; midway between coxae III and IV is a pair of long spines ; level with posterior edge of coxae IV is a pair of long spines. On caudal lobe between terminal bristles are two pairs of small spines. Tarsus II with two short, stout claws ; tarsus III and IV each with two long claws.

Type host : Lesser horse-shoe bat (*Rhinolophus hipposideros* Bech.)

Type locality : England.

Measurements : ♂ 0.4 mm × 0.17 mm ; ♀ 0.53 mm × 0.2 mm.

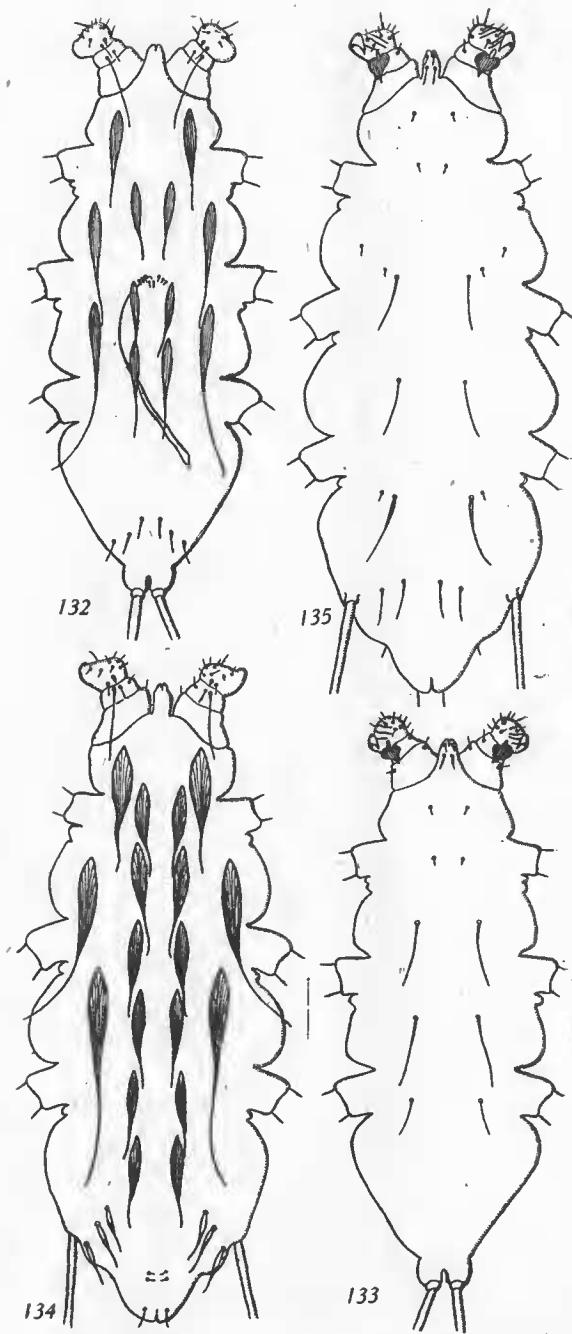
FOLIOMYOBIA MYSTACINALIS (Radford, 1935).

Myobia mystacinalis Radford, 1935 *North West Nat. Arbroath*, p. 255.

The male dorsum (fig. 132) has lateral spines I close to coxae I, reaching beyond bases of lateral spines II, striated, foliate ; lateral spines II posterior to coxae II, narrower, striated, extending to midway between coxae III and IV ; lateral spines III slender, foliate, close to coxae III, reaching beyond coxae IV. Sub-median spines I level with posterior edge of coxae II, reaching coxae III, foliate, striated ; sub-median spines II level with coxae III, not reaching coxae IV ; sub-median spines III midway between coxae III and IV, extending beyond coxae IV. Anterior to caudal lobe are three pairs of small, simple spines arranged in two diverging rows. Genital pore level with coxae III, furnished with four pairs of minute spines. Penis long, whip-like, extending from coxae IV to the pore.

The male venter (fig. 133) has one pair of minute spines anterior to coxae II ; a pair of small spines level with coxae II ; a pair of long, stout spines midway between coxae II and III ; posterior to coxae III is a pair of long spines extending to coxae IV ; level with coxae IV is a pair of spines. Tarsus II with two short, stout claws ; tarsus III and IV each with two long claws.

The female dorsum (fig. 134) has lateral spines I posterior to coxae I, extending to midway between coxae II and III, striated, broadly foliate ; lateral spines II between coxae II and III, long, tapering, almost reaching coxae IV, foliate, striated ; lateral spines III close



Foliomyobia mysticinalis (Radford, 1935).

FIG. 132, ♂ dorsum. — FIG. 133, ♂ venter. — FIG. 134, ♀ dorsum. — FIG. 135, ♀ venter.

to posterior edge of coxae III, extending well beyond coxae IV, foliate, striated. Sub-median spines I anterior to coxae II, foliate, striated; sub-median spines II posterior to coxae II, foliate, striated; sub-median spines III level with anterior edge of coxae III; sub-median spines IV posterior to lateral spines III; sub-median spines V level with coxae IV; sub-median spines VI posterior to coxae IV. Between sub-median spines VI and terminal bristles are three pairs of stout spines arranged in two diverging rows. Genital pore close to posterior end of body, furnished with four pairs of spines. Close to posterior end of body are two long spines.

The female venter (fig. 135) has a pair of small spines posterior to coxae I; a pair of small spines level with anterior edge of coxae II; a pair of long, stout spines anterior to coxae III, flanked laterally by two pairs of smaller spines; a pair of long, stout spines midway between coxae III and IV; posterior to coxae IV is a pair of long, stout spines, flanked laterally by a pair of small spines. Level with terminal bristles is a line of four long, simple spines; four small spines on the posterior end of body. On the venter of legs I is a pair of broad, lanceolate, striated processes with a thumblike spur situated in its centre. Tarsus II with two short, stout claws; tarsus III and IV each with two long claws.

Type host : Whiskered bat (*Myotis mystacinus* Kuhl).

Type locality : Alderley, Cheshire, England. October 24, 1931.

Measurements : ♂ 0.5 mm × 0.15 mm; ♀ 0.58 mm × 0.19 mm.

Holotype male, allotype female in the collection of Harry Britten, Esq., F.R.E.S., Manchester. Paratypes in the author's private collection.

RÉFÉRENCES.

- BANKS, N. (1909). New Canadian Mites. *Proc. ent. Soc. Wash.* **11** : 133-43.
BERLESE, A. & TROUESSART, E. L. (1889). Diagnoses d'Acariens nouveaux et peu connus. *Bull. Bibl. Sci. l'Ouest*, **9** : 141.
CLAPAREDE, (1868). Studie an Acariden. *Z. wiss. Zool.* **18** : 4, 519-30.
EWING, H. E. (1938). North American mites of the subfamily Myobiinae, new subfamily (Arachnida). *Proc. ent. Soc. Wash.*, **40** : 180-97.
FOX, I. (1937). A new Cheyletid mite (Acarina) parasitic on the Carolina jumping mouse, *Zapus hysonicus americanus* (Barton). *Proc. ent. Soc. Wash.* **39** : 8, 227-30.
HALLER, G. (1882). Beitrag zur Kenntnis der Milbenfauna Wurttembergs. *Jahrs. Ver. vaterl. Naturk.*
HEYDEN, C. von (1826). Versuch einer system Eintheilung der Acariden. *Oken, Isis*, **19** : 613.
KOCH, C. L. (1835). *Crustacean, Myriopoda u Arachnidens, Deutschlands*, **33** : 5.

- MEGNIN, P. (1877). Monographie de la Tribu des Sarcoptides Psoriiques, qui comprend tous les Acariens de la Gale de l'Homme et des Animaux. *Rev. Mag. zool.* **28** : 46-213.
- MEILLON, B. DE & LAVOPIERRE, M. (1944). New records and species of biting insects from the Ethiopian region. *J. ent. Soc. S. Africa*, **7** : 38-67.
- MICHAEL, A. D. (1884). On an undescribed Acarus of the genus *Myobia*. *J. Quekett Micro Club*, **2** : (2), 1-7.
- PERKINS, M. (1925). On *Acanthophthirius etheldredae*, a new genus and species of Anoplura. *Ann. Mag. nat. Hist.*, (9), **16** : 175-178.
- POPPE, S. A. (1896). Beitrag zur Kenntnis der Gattung *Myobia* v. Heynde. *Zool. Anz.* **19** : 508, 327-33. **19** : 509, 337-49.
- POPPE, S. A. (1908). Aus dem *Myobia*-Nachlass des Herrn Poppe. Fahrenholz in *Abh. nat. Ver. Bremen*, **19** ; 3, 359-70.
- RADFORD, C. D. (1934). Notes on mites of the genus *Myobia*. *North West Nat. Arbroath*, 356-64.
- RADFORD, C. D. (1935). Notes on mites of the genus *Myobia*, Pt. 2. *North West Nat. Arbroath*, 248-58.
- RADFORD, C. D. (1936). Notes on mites of the genus *Myobia*, Pt. 3. *North West Nat. Arbroath*, 34-39.
- RADFORD, C. D. (1936). Notes on mites of the genus *Myobia*. Pt. 4. *North West Nat. Arbroath*, 144-151.
- RADFORD, C. D. (1938). Notes on some new species of parasitic Mites. *Parasitology*, **30** : 4, 427-440.
- RADFORD, C. D. (1940). Notes on some new species of parasitic Mites. *Parasitology*, **32** : 1, 91-104.
- SCHRANK, F. P. VON (1781). *Pediculus Muris musculi*. *Enumeratio Insect. Aust. indig.* 501-502.
- TROUESSART, E. L. (1895). Sur les métamorphoses du genre *Myobia* et diagnoses d'espèces nouvelles d'Acariens. *Bull. Soc. ent. France*, **8** : 84.
- TURK, F. A. (1945). Studies of Acari. Second Series. Descriptions of new species and notes on established forms of parasitic mites. *Parasitology*, **36** : 133-141.
- VITZTHUM, H. GRAF. (1914). Beischreibung einiger neuen Milben. *Zool. Anz.* **44** : 322-323.
- WOMERSLEY, H. (1941). Notes on the Cheyletidae (Acarina, Trombidioidea) of Australia and New Zealand, with descriptions of new species. *Rec. S. Aust. Mus.* **7** : 51-64.